

It is apparent that the technological scope economies inherent in basic and enhanced telecommunications services generate organizational scope economies as well. These are particularly important in determining the pace of new innovation. Rescinding the CI-III ruling in favor of full structural separation can be expected to significantly slow the pace of innovative activity in this industry, and to diminish the availability to consumers of those innovations that do make it to market. Such a move would be particularly foolhardy as advances in digital electronics are obliterating traditional industry boundaries and require organization structures capable of integrating efforts across multiple industrial domains.

III. Organizational Economies of Scope and Innovation

Development of new products and services is a risky and delicate enterprise. Often it cannot be predicted from an initial research agenda what the new product will eventually turn out to be, nor can it be foreseen if the new product will find a market to justify the initial investment. Innovation is a collaborative process between many parts of an organization, such as design and marketing. Without ready access to the information of the marketing specialists it cannot be determined what directions new product development ought to take, or whether there will be sufficient demand to justify proceeding with development. Conversely, a new product or service requiring a large fixed investment might be justified only when several divisions recognize the opportunity; it might otherwise go undeveloped.

Structural separation would jeopardize many such opportunities. The BOCs are positioned to provide all kinds of advanced services. They have, under structural integration, a wide range of

financial, technological, and marketing capabilities relevant to the provision of enhanced services. Imposing structural separation would undermine the very sources of organizational scope economies that engender innovation, depriving consumers and the American economy of the performance of an important class of qualified competitors.

Needless to say, the social costs of throttling innovation are great. The information services industry is poised for continued growth if the existing conditions are not overturned and further reforms are considered. Not only are several technologies converging at a critical time for information services growth (computing, telephony, and video), but advanced delivery platforms are being developed and/or modified to accommodate use by multiple providers and service types.

This potential for sweeping innovation is demonstrated in the Advanced Intelligent Network (AIN) architectures being introduced into telecommunications networks today. AIN, if fully developed and implemented, will engender a new era of expanded services from which customers will be able to choose. There are currently numerous investigations into the feasibility, utility, and costs associated with modifying these platforms to make them more open for use by numerous providers and more compatible with newly emerging technologies and service concepts.

This would mean that another provider could either gain access to the functionality inherent in the platform residing in the telecommunications network, or could possibly use one of their own AIN entities to interconnect with the AIN platform in the telecommunications network, for provision of numerous information services. The distributed architecture of the AIN permits flexibility in functionality and centralization in deployment of a new service by distributing intelligence

out of the switches. Hence, where it took years to bring new products to fruition in the past, it appears that the AIN structure will permit development and implementation in a matter of months.

At many of the LECs (in particular, Ameritech) analysis is focused on identifying benefits common to multiple markets, as well as those distinctive to each market, so that the costs, which tend to be exceptionally high, could be borne across multiple products or units. It is my understanding that Ameritech's investigations to date have indicated that no product family or unit could support these costs on the strength of the applications and associated revenue potential for its market alone.

Imposing structural separation requirements on AIN is therefore likely to impede BOC ability to identify complementary market opportunities that encourage the cost-sharing that will be required to modify AIN architecture. The nature of the innovative process in AIN relies specifically on frequent and fluid flow of sensitive information between business units and functions, precisely the sorts of activities that I have argued are impeded by artificial organizational boundaries. The immediate result of structural constraints could very well be the inability to justify the very large costs and financial risks associated with such architectural modifications and the attendant costs of changing systems to support an open environment. The far more wide-reaching effect, however, could be the closing of one significant avenue for innovation in the creation and delivery of information services to customers. This could foreclose not only the new services the BOCs could offer using AIN, but also the development of new services by independent enhanced service providers that would use BOC AIN platforms.

IV. The Competitive Effects of Integration

In the natural evolution of any vigorous industry, some firms will, by virtue of their superior skills, willingness to take risk, or luck, create superior capabilities and out-perform their competitors. Successful players in a market are likely to develop different capabilities which can translate into a distinct competitive advantage.

Competitive strengths of this kind should be distinguished from anticompetitive behavior. With anticompetitive behavior, a firm seeks to gain by crippling a rival's ability to make full use of its own resources. Obstructing a rival's access to essential basic services could be an example of anticompetitive activity and is properly precluded under the non-structural safeguards of CI-III. A firm engaged in fair, robust competition seeks to make the best use of the superior resources it has developed. The goal of public policy should be to promote and facilitate competitive behavior while hindering anticompetitive activities.

Permitting the BOCs to utilize their particular competitive strengths enhances competition; but of course it need not guarantee the success of their competitors. Pro-competitive public policy neither requires nor implies that better qualified competitors be handicapped precisely because they have superior capabilities. Efforts to continually rebalance the playing field in such a fashion would be a perversion of competitive principles, and would hurt customers and the economy.

Vertical integration assists, but is not a necessary condition for, innovation. This means that the market can support both integrated and unintegrated arrangements. Regulatory controls which foreclose one or the other, however, are undesirable with respect to innovation and social welfare. Moreover, regulatory controls which foreclose one group of competitors (in this case, the BOCs) from

integrated solutions, while other competitors are allowed to offer integrated solutions (e.g., AT&T long distance services and voice mail) will further erode social welfare and create significant competitive distortions.

Structural separation is tantamount to tying one hand behind the backs of the BOCs. It deprives customers of the benefits from joint development, marketing, and provision of basic and enhanced services. It also prevents customers from fully benefiting from new services that the BOCs can develop and deploy in the absence of structural separation.

V. The Value of Joint Marketing

Under the rules of CI-III the BOCs are permitted to offer their enhanced services directly to their basic-service customer base. This responds to the demands of consumers, who reportedly objected to the cumbersome and awkward marketing required under the rules of structural separation. For example, under structural separation the BOCs were not permitted to comply with consumers' requests to obtain both basic access and voice mail services from a single service.

Consumers' preference for one-stop shopping is shown by the experience of Ameritech in the provision of voice mail. In developing its Information Services Strategy in 1987/1988, Ameritech took into account the structural separation requirements of CI-II and chose the strategy of being the low-cost wholesaler of voice mailboxes to non-affiliated enhanced services providers. Ameritech also believed it would gain significant revenues by providing underlying access lines and other network features to third party providers (i.e., BSEs and BSAs). Although the strategy did not preclude retail offerings under CI-II separate subsidiaries, Ameritech reasoned that it could not compete effectively on a structurally separate basis. Rather than create a situation of trying to sell both wholesale mailboxes and retail voice mail (in direct competition with the wholesale customers), Ameritech chose to nurture the growth of the third party providers. It was believed this approach would foster a highly competitive market which would serve all of Ameritech's customers (wholesale and retail) and, in turn, maximize sales and usage of mailboxes.

By mid-1991, Ameritech had sold/leased 19,000 mailboxes under this strategy. In comparison, the number of mailbox sales at BOCs that had filed CEI plans and were offering

voice mail in direct competition with non-affiliated enhanced service providers, was in the 100,000 to 230,000 range. At the same time, sales personnel and customers, both residence and business (especially Centrex), were urging Ameritech to offer Voice Messaging in a way which would allow them to have a single source for purchasing, maintaining, and revising the services and features customers wanted. With Ameritech's failure to jointly offer basic services with the enhanced voice mail service, Ameritech put itself at a disadvantage in selling to its own customers.

The business marketplace was one in which Ameritech had a chance to compete with the national providers (AT&T, MCI, et. al.). However, even here, Ameritech was handicapped, because the major providers were able to package their voice mail with their 800-number offerings. The 800 revenues alone provided as much as one-third of their profits in the voice mail packages; they were able to subsidize the costs of the voice mail platform with the 800 income, so that boxes could be offered at lower rates, even though margins were running at \$.08 to \$.13 per minute of use. The competitive advantage of the national providers did not derive from a fundamental technological superiority, but rather their ability to joint market.

Today, even though Ameritech is still unable to participate in the more profitable and attractive packaging with the national 800 access numbers that business customers want (because of the MFJ interLATA restrictions), by competing in the retail voice mail business, and by jointly marketing the offerings with its basic telephone service, Ameritech has been able to realize significantly greater sales than were possible without joint marketing. As of the end of 1994, Ameritech had over 400,000 voice mail boxes in service, access line coverage exceeding 80%,

and revenues of over \$26 million (including Complementary Network Services). Due to lack of national 800 access, however, Ameritech has been much less successful at serving business customers. Only 20% of its voice mail accounts are business customers, comprising under 21% of Ameritech's total voice mail and CNS revenues. The significant growth in Ameritech's sales in the consumer marketplace indicates the customers' emphasis on the importance of being able to purchase through a single source. On the other hand, the much lower success in the business market reflects the inability to package the service with the features (i.e., national 800 access) desired by the business customer.

Aside from the evident, quantifiable value to customers that joint marketing has exhibited in voice mail, the joint marketing of basic and enhanced services has an additional social benefit. To understand the point, it is relevant to note that for many services Ameritech reports that roughly 80% of its revenue derives from 20% of its customers. As new enhanced services are offered, new entrants often cream skim, leaving behind a large pool of less profitable customers without access to enhanced services.

The BOCs themselves, however, are uniquely situated to serve customers through mass marketing rather than niche marketing. As providers of basic services, the BOCs already have a broad customer base. The incremental cost to them of acquiring these customers is low if they can joint market. For other firms, while the returns from high-usage customers of enhanced services is relatively high, the cost of marketing to less profitable customers is likely to be discouraging. If the BOCs are prevented from joint marketing by the reimposition of structural separation, many less profitable consumers will not be served at all. To the extent that broad provision of enhanced services is itself a

public policy goal, it appears to be most likely met by the BOCs, and only if joint marketing is not prohibited.

Put differently, the main beneficiaries of the economies of scope between basic and enhanced services are those customers whose profit contribution is marginal if providing enhanced services must be provided on a stand-alone basis. The availability of enhanced services to lower income groups would be jeopardized by structural separation. In short, structural separation would have regressive social policy implications.

VI. Non-structural Safeguards are Sufficient to Prevent Anti-competitive Activities

The public interest would not be served by structural integration if the door were thereby opened for anticompetitive behavior. Fortunately, the FCC's experience under structural relief indicates that the non-structural safeguards -- necessary only so long as competition in the local exchange is inadequate -- have worked to foster a competitive marketplace. We consider the safeguards in turn.

A. Safeguards Against Cross-Subsidization

Structural integration between basic and enhanced service provision has historically raised the concern that the BOCs might unfairly compete in enhanced services by cross-subsidizing their enhanced services with the revenues from basic access. The alleged cross-subsidization would permit them to offer low prices in enhanced services that rivals could not profitably sustain.

Two factors lead me to believe that cross-subsidization is not a major concern under structural relief. First, the BOCs have little or no incentive to engage in it; and second, the regulatory safeguards effectively eliminate the BOCs ability to do so. I deal with each in turn.

When a firm engages in cross-subsidization, it incurs losses on the activity it is subsidizing. The firm can benefit from this strategy only if it succeeds in forcing out rivals by underpricing them and then increasing prices to a profitable level, or by shifting costs to regulated activity. The first is feasible only if the higher prices do not invite re-entry. Because re-entry into enhanced service provision is likely to be achievable at low cost, that market is contestable and cross-subsidization is unlikely to be profitable.

Moreover, the ubiquity of pure price cap (i.e., without earnings sharing) regulation in all five of the Ameritech states has dramatically eroded cost shifting incentives. Under the remaining Federal jurisdiction, pure price caps appear to be imminent.

The regulatory rules governing accounting practice and reporting requirements further minimize the BOCs ability to engage in cross-subsidization, were they inclined to attempt it. Attempts to disguise cross-subsidization are most likely to distort the allocation of joint costs. Hence, the FCC accounting rules invoke, among other safeguards, standards that strictly govern the allocation of joint costs. The regulations also mandate that cost allocations be audited both by independent auditors and FCC auditors.

B. Network Disclosure Rules

In order to facilitate other providers' technological access to the network, the FCC has required that the BOCs make public the technological characteristics and configurations of their interfaces. In many cases, innovation of new products and services entails developing new interfaces. The FCC requirement obligates the BOCs to disclose these new interfaces at least six months before commercial availability. This safeguard, to which other carriers are not subjected, protects competing providers from indirectly limiting access to the network.

C. Safeguards Against Access Discrimination

The central regulatory concern is the potential for the BOCs to use their proprietary access and market position in basic services to preclude rivals from provision of downstream services. Hence, explicit regulatory restrictions currently in place focus specifically on ensuring equal access. These attack the problem on three fronts: they require that the technology support equal access via an open network architecture; they require regular reporting of long term plans of deployment of the open network architecture; and they specify detailed reports to the FCC regarding timeliness of technical services to affiliated and non-affiliated customers.

In addition to these regulatory safeguards, two economic factors limit the BOCs incentives to discriminate against the other providers. The first is that, while the other providers of enhanced services compete with the BOCs for that business, they are the BOCs' customers for basic service. Limiting the access of their own customers to the services the BOCs provide is revenue decreasing. Second, the market position of the BOCs in provision of basic access is eroding rapidly, as competition

emerges from facilities-based entry, unbundling and resale. Limiting access to basic services only increases the incentives of the disadvantaged firms to step up their innovative activities to circumvent the BOCs entirely.

D. Customer Proprietary Network Rules

The BOCs are restricted from making use of proprietary information to which they have access due to their provision of basic services. Because information on the customer base can be a very valuable competitive tool, the rules provide that the BOCs have access to this information on the same basis as other providers of enhanced services.

If the BOCs were failing to adhere to the safeguards in any way, one would expect vigorous complaint from competitors. To my knowledge, the FCC has not received any complaints alleging BOC violation of these CI-III safeguards.

The safeguards could fail in other ways. It might be that the BOCs are obeying the rules as written, but have somehow discovered ways to circumvent them that were not anticipated at the time of the writing of the CI-III ruling. However, to my knowledge the FCC has not received any formal complaints of discriminatory treatment as a result of "loopholes" in the safeguards. The evidence appears to be that the BOCs continue to follow both the letter and spirit of the safeguards.

Finally, the best evidence that the safeguards are working is the vigor of competition. In voice mail, Ameritech's most successful enhanced service, rivals collectively control three-fourths of the market. Ameritech attributes its success in that market to its aggressive marketing toward consumers and small businesses, sectors disfavored by other providers. Indeed, my earlier analyses indicated that

these sectors might not be profitable at all in the absence of Ameritech's ability to joint market basic and voice mail services to them. In Faxtra, Ameritech's enhanced fax service, the firm controls only about 3% of the regional market. Ameritech has an even smaller market share in its other enhanced services.

VII. Conclusions

The safeguards imbedded in structural relief have prevented anticompetitive behavior. Structural separation would also, presumably, prevent anticompetitive behavior, but only at great cost. The status quo ought to be preserved while the Commission examines further regulatory freedoms. The current arrangements at least permit customers to benefit from the BOCs' unique assets, and their innovation enhancing economies of scope. The existing non-structural safeguards are well designed to prevent anticompetitive activities, yet they do not completely block the realization of the benefits from coordinated provision of basic and enhanced services. The fact that the non-structural safeguards effect a surgically clean attack at the potential negative activities in the market, while leaving intact the desirable ones, suggests that rescinding those safeguards and imposing structural separation would be contrary to the public interest. Lower income households and businesses are likely to be disadvantaged the most.

Finally, the FCC is urged to consider the fact that in this market the technological features that historically necessitated regulation are themselves quickly eroding. MCI and Sprint have announced major investments in provision of local exchange services, and other players have already been certified as local exchange providers. The evolution of wireless technology and convergence of multimedia technologies is likely to render existing technologies obsolete. Forward looking public policy should

recognize that artificial constraints on organizational structure that inhibit innovation, unfortunate in the best of circumstances, would be extremely foolhardy now as technologies converge and access competition sharpens.

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